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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
OAKLAND DIVISION

CELGARD, LLC,

PLAINTIFF,

V.

SHENZHEN SENIOR TECHNOLOGY MATERIAL CO. LTD. (US) RESEARCH INSTITUTE, SHENZHEN SENIOR TECHNOLOGY MATERIAL CO. LTD., SUN TOWN TECHNOLOGY, INC., FARASIS ENERGY USA, INC., FARASIS ENERGY, INC., FARASIS ENERGY (GAN ZHOU), INC., FARASIS ENERGY (GAN ZHOU) CO., LTD., GLOBAL VENTURE DEVELOPMENT, LLC, AND GLOBAL VENTURE DEVELOPMENT, INC.,

DEFENDANTS.

Case No. 4:19-cv-5784-JST

FIRST AMENDED COMPLAINT FOR:

1. **PATENT INFRINGEMENT IN VIOLATION OF 35 U.S.C. § 271(A-C)**
2. **MISAPPROPRIATION OF TRADE SECRETS IN VIOLATION OF 18 U.S.C. § 1836 *et seq.***
3. **MISAPPROPRIATION OF TRADE SECRETS IN VIOLATION OF CAL. CIV. CODE § 3426 *et seq.***
4. **VIOLATION OF CAL. BUS & PROF. CODE § 17200**
5. **INDUCING BREACH OF CONTRACT**
6. **INTENTIONAL INTERFERENCE WITH PROSPECTIVE ECONOMIC RELATIONS**
7. **BREACH OF CONTRACT**

8. BREACH OF IMPLIED COVENANT OF GOOD FAITH AND FAIR DEALING

DEMAND FOR JURY TRIAL

Plaintiff Celgard, LLC ("Celgard") files this Complaint against Defendants Shenzhen Senior Technology Material Co. Ltd. (US) Research Institute ("Senior-California"), and Shenzhen Senior Technology Material Co. Ltd. ("Senior-China") (collectively, "Senior"), Sun Town Technology ("Sun Town"), Farasis Energy USA, Inc., Farasis Energy, Inc., Farasis Energy (Gan Zhou), Inc., and Farasis Energy (Gan Zhou) Co., Ltd. (collectively, "Farasis"), Global Venture Development, LLC, and Global Venture Development, Inc. (collectively, "Global Venture") (collectively, "Defendants") and alleges as follows:

INTRODUCTION

1. This lawsuit concerns, among other things, the brazen theft of Celgard's trade secrets and/or infringement of Celgard's patents by Defendants.

2. Celgard, a U.S. manufacturer, located in Charlotte, North Carolina, has invested hundreds of millions of dollars into research and development for new battery technologies and is an innovator in both coated and uncoated separators used in lithium-ion batteries. Through years of investment, Celgard has worked hard to become a global leader in the development and manufacture of separators used in lithium-ion batteries for consumer electronic ("CE") devices and electric vehicles ("EVs"). Celgard makes products in North Carolina, has facilities around the world, and ships products globally.

3. In the past 20 years, rechargeable lithium-ion batteries became very popular for use in varying applications. Lithium-ion batteries provide a power source with a higher energy density, longer cycle life, and higher operational voltages with a relatively small size and light weight, as compared to other rechargeable batteries. Separators are thin electrically insulating sheets used in batteries, and they sit between a battery's electrodes—the anode and the cathode. The separator is typically microporous to allow for ionic conduction (of lithium ions) while preventing direct physical contact and electrical connection between the electrodes of the battery. Separators

are critical because the touching of the two electrodes typically results in a major electrical "short" of the cell and possibly in catastrophic failure such as fire or explosion.

4. Celgard has a broad portfolio of highly engineered products used in this industry and is one of the largest suppliers of separators to the lithium-ion battery industry. Celgard's separators are widely used in lithium-ion batteries for EVs, energy storage systems, power tools, and CE devices, such as notebook computers, mobile telephones, and tablets. EVs include both hybrid EVs, like the Toyota Prius, and full-EVs like Teslas.

5. Celgard's work in the lithium-ion battery industry has been highly praised, and Celgard has received numerous accolades for its work in the lithium-ion battery industry. Celgard's work in EVs in particular has been praised by numerous high-ranking officials, including former President Obama, former Secretary of Energy, Steven Chu, and former Secretary of Labor, Hilda Solis.

6. Celgard has diligently pursued and procured intellectual property rights both in the United States and internationally. Celgard owns more than 200 United States and international patents. Celgard invented a new separator for use in batteries and patented its inventions in United States Reissued Patent RE47,520, (the "'520 patent"), formerly United States Patent 6,432,586, entitled "Separator for a High Energy Rechargeable Lithium Battery." The '520 patent describes and claims a separator for a high-energy rechargeable lithium battery that addresses the significant problem of dendrite growth (irregular growth of lithium metal when it is plated onto an electrode during the charging of a battery between electrodes), as well as other problems. The '520 patent is recognized as being foundational in the separator field and has been cited in over 50 patents and patent applications; it will expire in April 2020. Celgard also owns United States Patent No. 6,692,867 ("the '867 patent"), entitled "Battery Separator-Pin Removal" that is asserted in this action (collectively, the '520 patent and the '867 patent make up "the Asserted Patents"). A true and correct copy of the '520 patent is attached hereto as **Exhibit A**. A true and correct copy of the '867 patent is attached hereto as **Exhibit B**.

7. Celgard's commitment to innovation led it to develop numerous, cutting-edge technologies related to the design and production of separators in lithium-ion batteries. In addition

to seeking patent protection on some of this innovative technology, Celgard also maintains other information as confidential and subject to trade secrets. The trade secrets and confidential information at issue in this dispute fall into at least one of these following categories: (1) Research and Development; (2) Procurement; (3) Manufacturing Processes and Systems; (4) Assembly; (5) Quality Control and Testing; and (6) Sales/Business.

8. Celgard has invested hundreds of millions of dollars to develop its trade secrets and confidential information over the course of 30 plus years. This significant investment has resulted in separators used in lithium-ion batteries that are safe and efficient and have evolved through vigorous testing and optimization with custom machinery and proprietary processes. As a result of its significant investments in developing its intellectual property, Celgard has become one of the top suppliers of separators for lithium-ion batteries in the world.

9. Senior, a Chinese manufacturer of separators, has avoided the time-consuming and expensive process of developing its own separator technology.

10. Senior embarked on a scheme to significantly injure Celgard and take over the global separator market with an intent to eclipse Celgard. Senior's strategy was not based on fair competition, independent research and development, and its own advances in technology. Instead, Senior's strategy was to build a suite of products through unlawful theft and use of Celgard's intellectual property, confidential information, and trade secrets. As a result, per public market reports, Senior became a top producer of separators in 2017, occupying 7% of the global market–matching Celgard.

11. Senior accomplished its scheme by, among other things, in October, 2016 hiring one of Celgard's lead scientists, Dr. Xiaomin (Steven) Zhang, who was an expert on separator membranes, resins, and production and had access to Celgard's most critical trade secrets and confidential information. Before leaving Celgard, Dr. Steven Zhang had access to, and accessed numerous Celgard trade secrets and confidential information. And when he joined Senior, Dr. Steven Zhang assumed a pseudo-name in China, Dr. Bin Wang, CTO of Senior, so that Celgard would not be able to locate him.

12. Celgard believes that Senior targeted Dr. Steven Zhang, who was involved in core

aspects of Celgard's technology and business, to leave Celgard, take a competing position with Senior, and disclose and use Celgard's trade secrets and confidential information for Senior's benefit. Celgard believes Senior did this knowing that Dr. Steven Zhang was bound by agreements with Celgard regarding confidentiality and/or non-solicitation.

13. While at Senior, Dr. Steven Zhang has used and continues to use Celgard's intellectual property, including Celgard's trade secrets and confidential information, to help Senior create infringing separators. In fact, after Dr. Zhang joined Senior, a key property of Senior's separators was optimized. Dr. Zhang had access to this critical trade secret and confidential information at Celgard and unlawfully used and disclosed this information to Senior. Senior has incorporated Celgard's extremely valuable trade secrets and confidential information on at least its resin technology and dry process technology, which it gained through Dr. Steven Zhang.

14. Senior is using Celgard's trade secrets and confidential information to design, develop, and produce many of its separators and, in the process, has taken away important customers from Celgard. Recently, Senior acquired a multi-million dollar contract with one of Celgard's customers, Farasis. Celgard has suffered and will continue to suffer great harm if Senior is allowed to continue using Celgard's trade secrets and confidential information and to continue infringing Celgard's patents.

15. Senior's misappropriation of Celgard's trade secrets and confidential information threatens Celgard's reputation as an innovator in the lithium-ion battery market and its market share that Celgard worked so hard to obtain. Through its development and protection of its intellectual property, including its patented technologies, trade secrets and confidential information, Celgard has diligently worked to become an industry leader for separators used in lithium-ion batteries. Senior's Chinese production of infringing separators through use of Celgard's patented technologies and misappropriating Celgard's trade secrets and confidential information is irreparably harming Celgard and will continue to do so if not enjoined.

16. Upon information and belief, Sun Town and Global Venture are alter-egos of at least Senior-California, and as such, also infringe Celgard's patents and have also misappropriated Celgard's trade secrets and confidential information. Sun Town and Global Venture are located in

the same complex as at least Senior-California, and upon information and belief, Senior-California and Senior-China have overlapping personnel.

17. Farasis is a developer and supplier of lithium-ion battery technologies for a range of markets, including transportation, electric grid, and commercial and industrial vehicles. Yet, Farasis knowingly incorporates Senior's infringing separators into its own products, and perpetuates the harm to Celgard, by then providing these products to its customers, such as Zero Motorcycles. Thus, Farasis has benefited and continues to benefit from Senior's misappropriation of Celgard's trade secrets and confidential information.

THE PARTIES

18. Celgard is a limited liability company organized and existing under the laws of Delaware, with its principal place of business located in Charlotte, North Carolina. Celgard is directly owned by Polypore International, LP, which is headquartered in Charlotte, North Carolina, and is indirectly owned by Asahi Kasei Corporation, which is headquartered in Japan.

19. Celgard is a U.S. manufacturer, has a broad portfolio of highly engineered products used in the battery industry, and is one of the largest suppliers of separators to the lithium-ion battery industry. Celgard has grown to be a global leader in the development and production of specialty microporous membranes, including separators used in rechargeable or secondary lithium-ion batteries for CE devices and EVs.

20. Shenzhen Senior Technology Material Co. Ltd. is a corporation organized and existing under the laws of China, with its principal place of business in Shenzhen, Guangdong, China.

21. According to its website, Shenzhen Senior Technology Material Co. Ltd. also has a place of business in Fremont, California through at least Senior-California.

22. Shenzhen Senior Technology Material Co. Ltd. (US) Research Institute is incorporated in the State of California, is registered to do business in the State of California, and has an office and research and development facility in the State of California, located at 44049 Fremont Blvd., Fremont, California, 94538.

23. Both Shenzhen Senior Technology Material Co. Ltd. and Shenzhen Senior

Technology Material Co. Ltd. (US) Research Institute are engaged in the business of developing, making, using, importing, offering to sell, and/or selling products, including coated separators and uncoated separators, to companies and institutions throughout the United States, including the State of California. Senior competes with Celgard in the battery separator market.

24. Sun Town is incorporated in the State of California, is registered to do business in the State of California, and has an office located at 44063 Fremont Blvd., Fremont, California, 94538.

25. Sun Town engages in at least the business of offering to sell, and selling Senior's products including coated separators and uncoated separators, to companies and institutions throughout the United States, including the State of California.

26. Upon information and belief, Sun Town and at least Senior-California are affiliates of one another and/or alter egos of one another.

27. Global Venture Development, Inc. is incorporated in the State of California, is registered to do business in the State of California, and also has an office located at 44063 Fremont Blvd., Fremont, California, 94538.

28. Global Venture Development, LLC is a limited liability company organized and existing under the laws of the State of California, is registered to do business in the State of California, and also has an office located at 44063 Fremont Blvd., Fremont, California, 94538.

29. Global Venture engages in at least the business of offering to sell, and selling Senior's products including coated separators and uncoated separators, to companies and institutions throughout the United States, including the State of California.

30. Upon information and belief, Global Venture and at least Senior-California are affiliates of one another and/or alter egos of one another.

31. Farasis Energy USA, Inc. is incorporated in the State of California, is registered to do business in the State of California, and has an office located at 21363 Cabot Blvd., Hayward, California, 94545.

32. Farasis Energy, Inc. is incorporated in the State of California, is registered to do business in the State of California, and has an office located at 2118 Arthur Avenue, Belmont,

California, 94002.

33. Farasis Energy (Gan Zhou), Inc. is a corporation organized and existing under the laws of China, with its principal place of business in Ganzhou, Jiangxi, China.

34. Farasis Energy (Gan Zhou), Co., Ltd. is a corporation organized and existing under the laws of China, with its principal place of business in Ganzhou, Jiangxi, China.

35. Farasis engages in the business of developing, making, using, importing, offering to sell, and selling products, including storage batteries, pouch cells, battery packs, and fuel systems that include, *inter alia*, Senior's separators, to companies and institutions throughout the United States, including the State of California.

JURISDICTION AND VENUE

36. Celgard repeats and incorporates by reference all prior allegations of this Complaint as if fully set forth herein.

37. This Court has subject matter jurisdiction of the action pursuant to the patent laws of the United States, 35 U.S.C. § 1 *et seq.* and pursuant to 28 U.S.C. § 1331 because Celgard's claims against Senior for violation of the Defend Trade Secrets Act, 18 U.S.C. § 1831 *et seq.*, raise a federal question. This Court also has supplemental jurisdiction over the other claims pursuant to 28 U.S.C. § 1367 because they are so related to the original claim that they form part of the same case or controversy.

38. This Court has personal jurisdiction over each of the named defendants. As alleged herein, each defendant has had continuous and systematic contacts with the State of California, has purposely directed activities at the State of California, and this action arises out of and relates to those activities. As alleged herein, each defendant's conduct occurred in California.

39. Shenzhen Senior Technology Material Co. Ltd. (US) Research Institute is registered to do business in the State of California and has its principal place of business here.

40. Shenzhen Senior Technology Material Co. Ltd. has purposely directed activities toward the State of California by knowingly injecting its infringing products into the stream of commerce with the knowledge and intent that those products will ultimately be imported into the United States and sold to, offered for sale to, and/or used by customers in California.

41. For example, in or around October 2016, Targray Technology International Inc. ("Targray") entered into a Distributor Agreement with at least Shenzhen Senior Technology Material Co., Ltd to promote and sell lithium battery separator products, including the separator products accused of infringement in this case. These accused separator products are manufactured by Senior-China, not Targray. Upon information and belief, this Distributor Agreement between Targray and at least Senior-China was still active at least as of June 2019.

42. Targray has imported, sold, and offered for sale Shenzhen Senior Technology Material Co. Ltd.'s infringing separators in California, where Targray maintained its principal place of business. Shenzhen Senior Technology Material Co. Ltd. knew of and intended that its infringing separators would be sold and/or offered for sale by Targray in California.

43. As another example, Shenzhen Senior Technology Material Co. Ltd. sells infringing separators to various battery makers such as Farasis Energy (Ganzhou) Co., Ltd., LG Chem, Ltd., Contemporary Amperex Technology Co. Limited ("CATL"), Saft America Inc. ("Saft"), and BYD Co. Ltd. ("BYD"). Each of these battery manufacturers sells products including the infringing separators to consumers in California.

44. Upon information and belief, Farasis batteries that include infringing separators are included in Zero Motorcycles, Inc.'s ("Zero Motorcycles"), electric motorcycles that are sold throughout the United States, including in California. Accordingly, both Farasis and Shenzhen Senior Technology Material Co. Ltd. ship infringing products into California through established distribution channels. Moreover, Shenzhen Senior Technology Material Co. Ltd. offers its infringing separators for sale in California through various entities including, but not limited to, Sun Town and Global Venture.

45. Both Farasis and Shenzhen Senior Technology Material Co. Ltd. knew or reasonably could have foreseen that a termination point of the infringing products would or could be California. Shenzhen Senior Technology Material Co. Ltd.'s own website states that it has "[a]fter years' market exploration . . . built up high efficient sales network [and] set up friendly cooperation with manufacturers for lithium batteries around the world" including in the United States.

46. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1391(c) because Shenzhen Senior Technology Material Co. Ltd., Farasis Energy (Gan Zhou), Inc., and Farasis Energy (Gan Zhou), Co., Ltd. are Chinese (foreign) corporations and not residents in the United States and may be sued in any judicial district under 28 U.S.C. § 1391(c)(3).

47. Venue is also proper in this judicial district pursuant to 28 U.S.C. § 1391(b) because a substantial part of the events giving rise to Celgard's claims occurred within the Northern District of California.

FACTUAL ALLEGATIONS

A. Celgard and its Technology

48. Celgard repeats and incorporates by reference all prior allegations of this Complaint as if fully set forth herein.

49. Celgard has a broad portfolio of highly engineered products and is one of the largest suppliers of separators to the lithium-ion battery industry. Celgard has invested hundreds of millions of dollars into research and development for new battery separator technologies and is an innovator in both coated and uncoated separators.

50. Celgard long has been recognized as a leading innovator in the battery separator market. Celgard's technology, its reputation, its market leadership, and its customer loyalty comprise a significant portion of Celgard's value.

51. Celgard's customers are predominantly companies that supply batteries (or cells) or battery packs (or modules) to manufacturers that produce CE devices, EVs, and energy storage systems. EVs include both hybrid-EVs, like the Toyota Prius, and full-EVs, like Teslas.

52. In the past 20 years, rechargeable lithium-ion batteries became very popular for use in varying applications. Lithium-ion batteries provide a power source with a higher energy density, longer cycle life, and higher operational voltages with a relatively small size and light weight, as compared to other rechargeable batteries.

53. Lithium batteries are typically constructed with a thin porous insulating film (the separator) that allows the battery to operate but prevents the electrodes (cathode and anode) from contacting each other. Liquid electrolyte fills the pores in the separator and voids in the electrodes.

When the battery is discharged, positively charged lithium ions flow in the electrolyte from the anode, through the separator pores, to the cathode. This process leaves a negative charge of electrons on the anode. When charging, the flow is reversed. In a rechargeable (secondary) lithium battery, the charge and discharge states are repeated during use. The process of charging and discharging the battery is referred to as one cycle.

54. A typical lithium-ion battery cell includes a positive electrode and a negative electrode that is divided by a separator or film, with the electrodes typically being made of compatible metal materials. The electrodes and film are often soaked in (and reside in) a liquid or liquid-like electrolyte. Lithium ions move through the electrolyte between the two electrodes when the battery is discharging its energy (e.g., when the battery is plugged into a device and energizing the device) and also when the battery is charging (e.g., when the battery is plugged into a charging station). The separator prevents direct contact between the electrodes. This is critical because the touching of the two electrodes typically results in a "short" of the cell and possibly in catastrophic failure such as fire or explosion. Therefore, by providing a physical barrier between the electrodes, the separator facilitates safety and continued operation of the battery.

55. Separators made of various materials have been used over the years. As batteries have become more sophisticated, separator function also has become more demanding and complex.

56. Lithium batteries present certain unique safety challenges due to their chemical design and composition. One such challenge is lithium dendrite growth—the irregular growth of a metal on an electrode during charging or discharging. Over repetitive charge-discharge cycles, dendrites may grow out from the electrode's surface in a needle-like structure. As the battery is cycled further, the dendrites may continue to grow, penetrating the separator and making direct, physical and electrical contact with the opposite electrode. When such contact is made, an electrical short circuit of the battery may occur. This may cause the battery to malfunction. In certain scenarios, it may cause the battery's internal temperature to rise quickly and uncontrollably, leading to thermal runaway and catastrophic failure.

57. The battery industry has long identified dendrite growth (and associated electronic

shorting) as a significant safety issue. Prior to the invention disclosed in the '520 patent, however, solutions to the problem were varied and achieved mixed results.

58. Celgard invented the separator technology described and claimed in the '520 patent to address safety and durability problems in lithium batteries. The separator claimed in the '520 patent, for example, in claim 12 of that patent includes, among other things, (1) a ceramic composite layer (or coating) including a mixture of inorganic particles and a matrix material, and (2) a polyolefinic microporous layer. The claimed separator's ceramic composite layer combines inorganic particles within a matrix material to create a ceramic composite layer adapted to at least block dendrite growth, which prevents electrical shorts, improving the safety and commercialization of high-energy lithium batteries. The claimed separator's polyolefinic microporous layer is adapted to block ionic flow between the anode and cathode at an elevated temperature such as during thermal runaway. This shutdown functionality further improves battery safety.

59. The '520 patent is based on a reissue application that was filed in 2015, issued in 2019, and will expire on April 10, 2020. The '520 patent is a Reissue of the 6,432,586 patent that was filed in 2000 and issued in 2002. Celgard is the owner by assignment of all right, title, and interest in and to the '520 patent, including the right to sue for past damages and injunctive relief.

60. The Patent Office has confirmed the validity of claim 12 of the '520 patent after three *inter partes* review challenges. A true and correct copy of U.S. Patent No. 6,432,586 ("the '586 patent"), the predecessor patent to the '520 patent, complete with *Inter Partes* Review Certificate is attached hereto as **Exhibit C**. On June 3, 2019, the validity of claim 12 was yet again confirmed in the Notice of Allowance in the reissue application that matured into the '520 patent.

61. Another of Celgard's inventions is an innovative way to remove a pin from a battery assembly. In the manufacture of high energy, lightweight batteries, for example, secondary lithium batteries, the battery assembly, i.e., an anode tape and a cathode tape sandwiching a separator tape, is wound about one or more pins (or cores or mandrels). To begin winding of the assembly, the separator tape is taken up on the pin, and then the anode and cathode tapes are fed to the pin. Upon completion of the winding, the battery assembly is removed (or withdrawn) from the pin. If the

assembly (i.e., the separator tape) sticks on the pin during withdrawal, the assembly "telescopes" and must be rejected. Such rejects increase the cost of the battery manufacturing process. In response to this problem, Celgard invented various separator methods and separators having improved pin removal properties, i.e., separators that will not cause telescoping when the battery assembly is removed from the pin. These inventive separators and methods are claimed in the '867 patent.

62. Celgard is the owner by assignment of all right, title, and interest in and to the '867 patent, including the right to sue for past damages and injunctive relief. The '867 patent was duly and legally issued by the United States Patent and Trademark Office on February 17, 2004, with all claims valid.

63. Celgard has invested in significant intellectual property protection and vigorously enforces its patents. Celgard's enforcement of the '520 patent (or its predecessor, the '586 patent) against infringing parties is well known within the battery and battery materials industry.

64. For example, In 2013, Celgard filed suit against Sumitomo Chemical Co., Ltd., in the United States District Court for the Western District of North Carolina for infringement of the '520 patent (or its predecessor, the '586 patent). The suit was resolved pursuant to agreement of the parties. The suit and its resolution were subject to at least national, industry-focused media coverage as shown in **Exhibit D** attached hereto.

65. In 2014, Celgard filed a patent infringement suit against LG Chem Ltd. and LG Chem America, Inc. (collectively, "LG Chem") in the United States District Court for the Western District of North Carolina for infringement of the '520 patent (or its predecessor, the '586 patent). The suit was resolved pursuant to agreement of the parties after significant district court litigation and patent office proceedings. The suit and its resolution were subject to at least national, industry-focused media coverage as shown in **Exhibit E** attached hereto.

66. In 2014, Celgard filed suit against SK Innovation Co., Ltd. ("SK Innovation") in the United States District Court for the Western District of North Carolina for infringement of the '520 patent (or its predecessor, the '586 patent). The suit was resolved pursuant to agreement of the parties after significant district court litigation and patent office proceedings. The suit and its

resolution were subject to at least national, industry-focused media coverage as shown in **Exhibit F** attached hereto.

67. In December 2018, Celgard filed a patent infringement suit against MTI Corporation in the United States District Court for the Northern District of California for infringement of the '520 patent (or its predecessor, the '586 patent). *Celgard, LLC v. MTI Corporation*, No. 5:18-cv-07441-VKD (N.D. Cal. filed Dec. 11, 2018). The suit against MTI has settled and has been the subject of at least national and industry-focused media coverage. *See, e.g.*, **Exhibit G**.

68. In May 2019, Celgard filed a patent infringement suit against Targray in the United States District Court for the Northern District of California for infringement of the '520 patent (or its predecessor, the '586 patent). *Celgard, LLC v. Targray Technology International Inc.*, No. 5:19-cv-02401-VKD (N.D. Cal. filed May 2, 2019). The suit against Targray has settled and has been the subject of at least national and industry-focused media coverage. *See, e.g.*, **Exhibit H.**

69. At least as of February 25, 2019, Celgard provided notice to Shenzhen Senior Technology Material Co., Ltd. about its misappropriation of Celgard's trade secrets, as well as infringement of the '520 patent (or its predecessor, the '586 patent).

70. At least as of November 12, 2019, Celgard provided notice to Farasis Energy Inc. about Senior's misappropriation of Celgard's trade secrets and confidential information, as well as Farasis' and Senior's infringement of the Asserted Patents.

B. Market for Separators

71. When customers select a separator for use in a battery, they often face competing issues. For example, a battery design that has a high energy density might have a poor cycle life. One of the most important competing issues is between energy density and safety. Particularly for batteries with high capacity (e.g., those used in EVs), a defect in a separator can lead to an unsafe event—such as a battery fire or explosion. Accordingly, while a battery designer might want to use a particularly thin separator to maximize energy density, a thin separator might be more susceptible to an unsafe condition than a thicker or coated separator.

72. Today, ceramic coated separators are increasingly common in the rechargeable (often large format) lithium batteries used in EVs and for other high-power applications. Much of

the plug-in EV market in the U.S. has adopted ceramic coated separator technology. As the EV market continues to grow, an increasing percentage of manufacturers have turned to ceramic coated separators as a means to improve battery safety, battery cycle life, and vehicle driving range.

73. The market for plug-in EVs that use lithium-ion batteries, specifically, is rapidly expanding with an increasing number of makes and models available for sale. Vehicle manufacturers are rapidly increasing the number of available plug-in EVs as demand grows.

74. In the midst of this growth, vehicle manufacturers continue to explore options for increasing the per-charge EV driving range, often using, or making plans to use, a ceramic coated separator to achieve this objective. The success behind the growth of EVs is significantly correlated with longer per-charge driving range—a critical consumer criterion. The longer per-charge driving ranges now available in today's EVs are supported by very high energy density lithium-ion battery cells. The characteristics of these types of lithium-ion battery cells typically lead cell design engineers to specify ceramic coated separators to help address a balance between performance (i.e., longer per-charge driving range) and safety.

C. Battery Separator Supply Chain and Competition

75. Tiered supply chains are the rule in the EV and CE industries, where the final product consists of many complex components and sub-assemblies that must comply with stringent quality, manufacturing, and business standards. Celgard is an important member of the EV or CE tiered supply chain. As such, it typically supplies components to a battery supplier, who in turn supplies components directly to an original equipment manufacturer (OEM) that produces CE devices, EVs, or energy storage systems.

76. Competition for battery sales does not occur on a unit-by-unit basis. Rather, battery manufacturers compete to have EV or CE manufacturers or OEMs use their batteries for an entire product line. Supplying batteries and battery parts for EVs and CEs requires extensive testing and validation among the separator supplier, the battery manufacturer, and the EV or CE manufacturer. Once selected, the battery manufacturers "design in" a particular separator for that "generation"—i.e., that model's production life cycle—which, for EVs, lasts from two to five years, or more. Because many batteries are designed to last for years, and because the ramifications of a battery

fire or explosion are so dire, OEMs tend to stick with a battery design, and a particular separator, for a long time. The successful battery manufacturer (and separator manufacturer) thereby procures a blocking position that immunizes it from competition for several years.

77. Celgard's experience in the EV market provides a good illustration. Celgard often collaborates with its customers and potential customers to provide highly-engineered and specifically-designed separators for each customer or potential customer's requirements. Typically, the selling process for a separator requires a series of meetings between the separator supplier, the battery producer, and sometimes the OEM, where requirements are discussed, and sample separators are provided and evaluated. These sample separators may be tested as isolated units, or they may be built into working batteries. Following testing, the separator manufacturer may modify the separator, and the new separator and batteries built with it are retested. This iterative process can continue for months or even years, and it can continue through the approval process, and even can be used to make continuous improvements to the product after it is launched.

78. Over time, relationships are developed among the supplier, the tiered customer and the OEM at many levels during this process. Supplying components for an EV creates a familiarity and confidence that yields an "incumbency effect" that can carry over from one design cycle to the next. "Incumbency effect" increases the likelihood that the tiered suppliers and OEM will continue to harvest their initial investment through future contracts. Furthermore, through its experience in the EV industry, Celgard has learned that OEMs are more likely to look to their current suppliers for future designs, rather than to suppliers to which the OEMs have not already awarded business, and other OEMs are more likely to select suppliers they know. All of this results in a strong competitive advantage for existing suppliers.

D. The Emerging Market in China for Separators

79. The Chinese government is seeking to have China become the global leader in lithium-ion battery technology, as well as the leader in EV technology. To facilitate these goals, the Chinese government provides subsidies for EVs, which in turn has caused demand for lithium-ion batteries to grow. According to market research, there are over 75 competing

Chinese companies that are positioned to provide lithium-ion batteries with ceramic coated separators with many more attempting to enter the market, including international manufacturers that must either meet strict standards or partner with a Chinese company. To accommodate the increased demand for battery cells (and separators), Chinese manufacturers are adding large numbers of production lines for separators, raising the total manufacturing capability to over 1 billion square meter (m^2) per year of separators.

80. Receipt of subsidies from the Chinese government is conditioned on meeting certain requirements, including a minimum energy density for the batteries installed in the EV. Thus, as with other EV manufacturers, Chinese EV manufacturers have continued to explore options for increasing the per-charge driving range of EVs.

81. With large production capabilities and government subsidies, Chinese battery manufacturers and Chinese separator manufacturers, like Farasis and Senior, can significantly discount the prices of their products, including separators and batteries.

82. One such company that manufactures coated and uncoated separators, including separators in China and significantly discounts prices for its separators is Senior.

83. Farasis and Celgard previously had a long standing business relationship together, with Celgard providing Farasis with separators for its batteries.

84. On or around April 26, 2017, Celgard entered into a Memorandum of Understanding with Farasis. The Memorandum of Understanding demonstrated Celgard's and Farasis' intent to form and operate a joint venture in China for the manufacture of ceramic coated separators (having Celgard base films) for use in Farasis' lithium-ion batteries.

85. On or around May 4, 2018, Celgard and Farasis entered into a valid and binding contract (collectively with said Memorandum of Understanding, "Agreements"), for Celgard to be the provider of separators to Farasis.

86. Upon information and belief, on or around January 1, 2019, Farasis and Senior entered into a contract, for Senior to supply separators to Farasis. That contract was effective before the Agreements expired and resulted in a breach of the Agreements. Senior also failed to fulfill the minimum order requirements of the Agreements, also resulting in a breach of the Agreements.

87. Due to Senior selling its separators—at deeply discounted prices—Celgard lost its contract with Farasis.

88. In particular, Celgard lost millions of m2 of business per year from Farasis and lost a then-valuable supply relationship. Farasis stopped purchasing from Celgard and, in January 2019, announced that it was purchasing Senior's infringing separators. This lost contract also demonstrates the irreparable harm, such as price erosion, breached contract, misuse, and misappropriation caused by Senior's unlawful conduct.

E. Celgard's Trade Secrets and Confidential Information

89. In addition to its patent rights, Celgard has expended significant time, effort, and expertise to develop a variety of valuable trade secrets and confidential information related to its separator technology.

90. Celgard's trade secrets and confidential information apply to the designing, developing, manufacturing, finishing, distributing, and selling of its separators. Celgard's trade secrets and confidential information relate to, for example, its resin technology, its dry process technology and include manufacturing methods, techniques, standard operating conditions ("SOC"), standard operating procedures ("SOP"), and processes, materials, performance issues (such as safety, temperature, battery life), suppliers, preferred resins, inspection and testing, resin properties, precursor properties, internal specifications, technical service, custom equipment, operating procedures, optimization of parameters, design, selling and marketing its products, and obtaining contracts and business with its customers.

91. Celgard's trade secrets and confidential information further include know-how relating to raw materials, development and production, as well as know-how used to obtain supply and reduce costs throughout the supply chain.

92. Based on its extensive research and development, product testing, trials, and other investments and experience, Celgard has acquired trade secrets and confidential information regarding how to effectively manufacture separators to improve the safety of batteries, efficiently meet customer demand, and perform quality testing to ensure its products meet customer specifications and industry standards. Celgard also has acquired know-how on its combination of

materials and optimization of properties.

93. Celgard takes reasonable steps to keep its trade secrets and confidential information confidential and to prevent their public disclosure. These steps include, but are not limited to: (1) requiring employees to sign non-disclosure agreements and adhere to a code of conduct; (2) making non-disclosure of trade secrets and confidential information and applicable security measures explicit in its employee hiring, training, and/or handbook; (3) restricting employee's physical and electronic access to trade secrets and confidential information and to reports containing such information; (4) requiring a valid user login to access electronic information; (5) requiring employee badges to access Celgard offices and plants; and (6) extensive training.

94. As a result of its considerable investment in the development, manufacture, marketing, and sale of its products and its efforts made to protect its trade secrets and confidential information from public disclosure or use, Celgard has gained a distinct, commercial and economic advantage in the separator market that has resulted in substantial sales and market share for its products.

F. Dr. Steven Zhang/Senior's Misappropriation of Celgard's Trade Secrets

95. Former Celgard employee, Dr. Steven Zhang, was employed by Celgard from 2005 until 2016. During that time, he held a number of positions, was part of the R&D department and function, and was an expert at Celgard in at least resins, polymers, membranes, base films, and process and production technology.

96. Dr. Zhang had climbed the ranks at Celgard, including being a Polypore Fellow, which is the highest technical rank in Polypore, as well as being a Celgard Technical Associate, which is the highest technical rank in Celgard.

97. During his time at Celgard, Dr. Zhang was an inventor or co-inventor on a number of Celgard patents, and was extensively and intimately involved with Celgard's separators' design, development, and production. As a result, Dr. Steven Zhang has unique, detailed, and extensive knowledge not only of Celgard's patented technology, but also of Celgard's trade secrets and confidential information relating to the design and manufacture of Celgard's separators, including, but not limited to, information relating to the materials, methods, production capacities, costs, and

processes employed by Celgard in connection with the development, manufacture, and assembly of its products (trade secrets and confidential information that are kept strictly confidential and not reflected, for example, in its '520 or '867 patents or Celgard's other patents related to separators).

98. As a result of Dr. Zhang's access to Celgard's trade secrets and confidential information, Celgard prohibited him by contract and company policy from disclosing or using such information outside of his employment with Celgard.

99. As an example, Dr. Zhang signed a valid and binding written non-disclosure and non-solicitation agreement with Celgard (the "Non-Disclosure Agreement") which provides in relevant part:

> **Nondisclosure of Proprietary Information.** Employee recognizes that all Proprietary Information is the sole property of the Company. At all times, both during the employment by Employer and after the termination of such employment, Employee agrees to keep in the strictest confidence and trust all Proprietary Information. Employee will not disclose, transmit or use in any way any Proprietary Information (except as may be necessary to perform employee's duties and obligations as an Employee of the Employer) without the prior express written consent of the management of Employer.

The Non-Disclosure Agreement also provides:

> **Nonsolicitation of Supplies.** During the term of Employee's employment with Employer and for thirty-six (36) months after the date Employee ceases to be employed by Employer (the "Restricted Period"), Employee shall not, directly or indirectly request, induce or attempt to influence any supplier of goods or services to the Company to curtail or cancel any business it transacts with the Company.

100. Dr. Zhang resigned from Celgard in October, 2016.

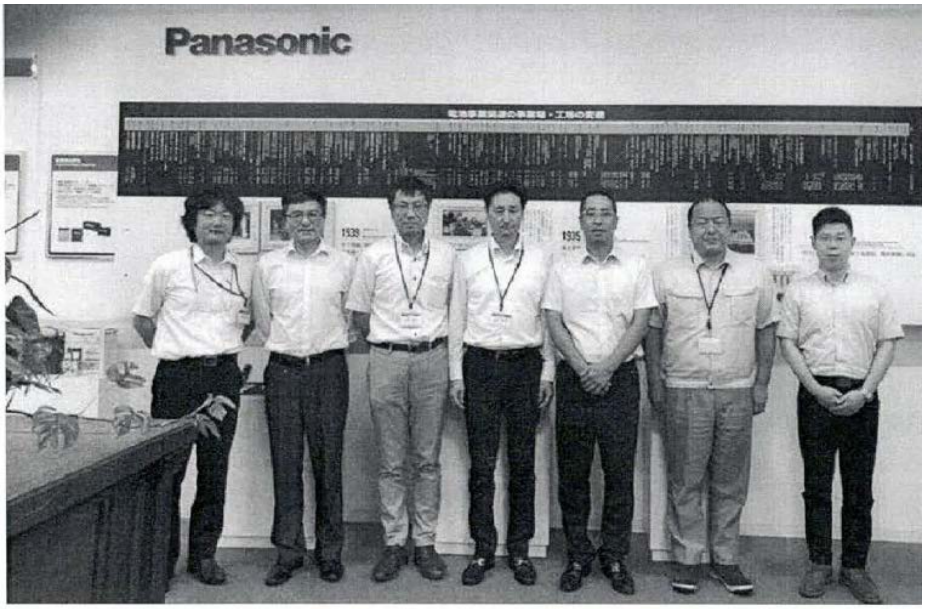
101. Dr. Zhang left Celgard for Senior. Upon information and belief, Dr. Zhang provided consulting services to Senior and/or was hired by Senior at least upon his departure from Celgard.

102. Dr. Steven Zhang (a/k/a Bin Wang) is the Chief Technology Officer (CTO) of Shenzhen Senior Technology Material Co. Ltd. in China and has a California address adjacent or part of the Shenzhen Senior Technology Material Co. Ltd. (US) Research Institute.

103. When Dr. Zhang left Celgard, he changed his name at least in China to Dr. Bin Wang, to avoid being identified by Celgard.

104. Celgard was able to locate him when it obtained a photograph of him at Panasonic

on behalf of Senior (second on the left):



105. On February 25, 2019, after Celgard learned that Dr. Zhang was working at Senior, Celgard sent a letter to Shenzhen Senior Technology Material Co. Ltd. explaining that Dr. Zhang has received Celgard's trade secrets and confidential information while at Celgard and that it would be impossible for him to serve his role at Senior and not use "Polypore's or Celgard's confidential information, inventions, and trade secrets."

106. Thus, Senior was warned and had full knowledge of at least the '520 patent (or its predecessor, the '586 patent), and that Dr. Zhang possessed Celgard's trade secrets and confidential information from his time working at Celgard and that Senior was not permitted to use or benefit from such information.

107. Senior hired Dr. Zhang for the specific purpose of using his knowledge of Celgard's patented technology and trade secrets and confidential information to help Senior develop its infringing separators and to capitalize on his prior relationship and confidential knowledge about Celgard's customers.

108. By stealing Celgard's trade secrets and confidential information through Dr. Zhang, Senior was intentionally attempting to drive Celgard out of the market.

109. After stealing Celgard's trade secrets and confidential information, Senior's global

market share increased. In 2017, Senior's global market share was 7% which was comparable to Celgard.

110. On information and belief, Dr. Zhang was directly involved in helping Senior design, develop, and devise a manufacturing process for the infringing separators, using Celgard's misappropriated trade secrets and confidential information. At least certain of Senior's infringing separators are detailed below.

111. Senior's separators greatly improved in quality after hiring Dr. Zhang. As an example, several properties of Senior's separators were improved or optimized after hiring Dr. Zhang. On information and belief, these properties were optimized using Celgard's trade secrets and confidential information used and disclosed by Dr. Zhang.

112. Senior knew, or should have known, that Dr. Zhang had acquired Celgard's trade secrets and confidential information through his breach of his duty to Celgard to safeguard Celgard's trade secrets and confidential information. Senior, on information and belief, has used this information taken from Celgard to develop and manufacture the infringing separators and has used and intends to continue to use this information to market and sell competing or infringing products.

113. Senior's and the other Defendants' infringement of the Asserted Patents and/or their misappropriation of Celgard's trade secrets, improper acquisition and use of Celgard's trade secrets and confidential information, and other wrongdoing has caused and will continue to cause Celgard to lose sales, customers, reputation, and market share for its products and thereby has caused and will continue to cause Celgard significant pecuniary harm for which it seeks injunctive relief and monetary damages and relief in an amount to be determined at trial.

114. Celgard has been and will continue to be irreparably harmed by Defendants infringing and unlawful activities.

G. Senior's Products

115. Senior and the other Defendants are aware of Celgard and its products, including Celgard's separator products.

116. Senior and at least Sun Town and Global Venture offer for sale ceramic coated

lithium-ion battery separators, including, but not limited to, those sold under at least the series designations SH, MCS, and MFS, those sold under at least the grades SH216, SH416, SH220, SH225, and SH230, and those sold under at least the model numbers SH420D14, SH420D22, SH416W14, SH416W22, SH216D14, SH216D22, SW312F (SH716W14, SH716W22), SW316E (SH220W14, SH220W22), SW320H (SH624W14, SH624W22), SH816D14, SH816D22, SH216Z14, SH216Z22, SH220D14, SH220D22, SH620D14, SH620D22, SH620T14, SH320Z14, SH224D14, SH224D22, SH624D14, SH624Z14, SH229D14, SH229D22, YV218D51A, YV718W51A, YT623D44A, and YT413W22.

117. Senior and at least Sun Town and Global Venture offer for sale uncoated polypropylene lithium-ion battery separators, including, but not limited to, those sold under at least the series designations SD, SQ, ST, and SZ, those sold at various thicknesses and porosity values, and those sold under at least the model numbers SD216C, SD216101, SD216001, SD216201, SD216E, SD216301, SD220C, SD220001, SD220101, SD422201, SD220201, SD425201, SD425301, SD425401, SD432101, SD432201, SD432301, SD440201, SD440301, SQ212D, SD212202, SQ212F, SD214202, SQ214E, SD216102, SQ216C, SD216202, SD220102, SD220202, SD220202 (double layers), SD425202, SD460201, ST212D, ST212F, ST214C, ST216D, ST216E, ST218D, ST218F, ST420C, ST420E, and SZ212202.

118. These products are sold directly by Senior and/or through its distributors.

119. One such distributor for Senior's products is Targray. Upon information and belief, others are at least Sun Town and Global Venture.

120. Senior directly ships or drop ships separator products to customers even when customers purchase Senior separator products through a distributor, such as Targray.

121. Targray, for example, states of Senior's products that "[t]he latest addition to Targray's line of battery separators, our ceramic separators delivers an exceptional combination of safety, temperature performance and life cycle for lithium-ion battery manufacturers and R&D facilities. Given their rigorous safety and performance features, our ceramic separators are ideally suited for advanced li-ion battery applications, namely electric vehicles and energy storage

systems."[1]

122. Senior's SH416W14 and SH416W22 separators are ceramic-coated wet process polyethylene separators, which "are also available with aluminum oxide ceramic coating to further enhance safety characteristics."[2]

123. Senior's SH216D14 and SH216D22 separators are "ceramic-coated dry process ceramic separators," which "are also available with aluminum oxide ceramic coating to further enhance safety characteristics."[3]

124. Senior's SH416W22 and SH216D22 are the double-side coated versions of SH416W14 and SH216D14, respectively.

125. At least Senior's SH416W14, SH416W22, SH216D14, and SH216D22 separators[4] infringe at least Claim 12 of the '520 patent. Claim 12 of the '520 patent recites:

> A separator for an energy storage system comprises:
>
> at least one ceramic composite layer or coating, said layer including a mixture of 20-95% by weight of inorganic particles selected from the group consisting of SiO_2, Al_2O_3, $CaCO_3$, TiO_2, SiS_2, $SiPO_4$, and mixtures thereof, and 5-80% by weight of a matrix material selected from the group consisting of polyethylene oxide, polyvinylidene fluoride, polytetrafluoroethylene, copolymers of the foregoing, and mixtures thereof, said layer being adapted to at least block dendrite growth and to prevent electronic shorting; and
>
> at least one polyolefinic microporous layer having a porosity in the range of 20-80%, an average pore size in the range of 0.02 to 2 microns, and a Gurley Number in the range of 15 to 150 sec, said layer being adapted to block ionic flow between an anode and a cathode.

126. The above-identified Senior ceramic coated separators comprise a ceramic composite layer or coating composed of inorganic particles of the nature and weight percentage (or the equivalent thereto) set forth in Claim 12 of the '520 patent. These Senior ceramic coated separator products have an "aluminum oxide ceramic coating to further enhance safety

[1] https://www.targray.com/li-ion-battery/separators/ceramic-separators (last accessed April 5, 2019), attached as **Exhibit I**.
[2] "High-performance Separators," Targray—Battery Division, attached as **Exhibit J**, at 6.
[3] *Id.*
[4] Further investigation may reveal that other Senior ceramic coated separators also directly or indirectly infringe Claim 12 (or other claims) of the '520 patent.

characteristics."[5]

127. The above-identified Senior ceramic coated separators comprise a ceramic composite layer or coating composed of a matrix material of the nature and weight percentage (or the equivalent thereto) set forth in Claim 12 of the '520 patent.

128. The above-identified Senior ceramic coated separators comprise a ceramic composite layer that is "adapted to at least block dendrite growth and to prevent electronic shorting," as set forth in Claim 12 of the '520 patent. On its website, Targray (Senior's distributor) acknowledged that these Senior "battery separators must be able to withstand penetration and branching moss-like crystalline minerals in order to prevent the contamination of electrodes. If the separator material is compromised, the performance of the high-power cell declines."[6]

129. The above-identified Senior ceramic coated separators comprise a polyolefinic microporous layer having porosity, average pore size, and Gurley Number measurements within the ranges (or the equivalents thereto) set forth in Claim 12 of the '520 patent.

130. The above-identified Senior ceramic coated separators comprise a polyolefinic microporous layer that is "adapted to block ionic flow between an anode and a cathode," as set forth in Claim 12 of the '520 patent.

131. Further, at least Senior's SD216C, SH420D14, SH420D22, SH320D14, SD216101, SD216001, SD216201, SH216D14, and SH216D22 separators[7] infringe at least Claim 17 of the '867 patent. Claim 17 of the '867 patent, for example, recites:

> A battery separator with improved pin removal properties comprising:
>
> a microporous membrane having a polypropylene surface portion including at least 50 ppm of a metallic stearate.

132. The above-identified Senior separators comprise a microporous membrane having a polypropylene surface portion including at least 50 ppm of a metallic stearate.

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[5] *Id.*

[6] https://www.targray.com/li-ion-battery/separators (last accessed Apr. 9, 2019), attached hereto as **Exhibit K**.

[7] Further investigation may reveal that other Senior coated or uncoated separators also directly or indirectly infringe at least Claim 17, or even other claims, of the '867 patent.

H. Sun Town and Global Venture are "Alter Egos" of Senior-California/Senior-China

133. Upon information and belief, Sun Town, Global Venture and Senior-California/Senior-China are affiliates of one another and/or alter egos of one another.

134. Senior-California's initial registered business address was 44063 Fremont Boulevard, Fremont, CA 94538. In March of 2018, Senior-California rented 44049 Fremont Boulevard, Fremont, CA 94358, an office space in the same commercial building as 44063 Fremont Boulevard.

135. Dr. Steven Zhang—the former Celgard employee who accessed Celgard's trade secrets and confidential information—is currently Chief Technology Officer of Senior-China, and had an address at the same location as Senior-California. Specifically, from April, 2019 until August, 2019, Dr. Zhang was located at 44063 Fremont Boulevard, Fremont, CA 94538.

136. Further, the phone numbers listed for Dr. Steven Zhang at the 44063 Fremont Boulevard location also appear to be phone numbers of different corporations located at the same address. For example, listed number (510) 573-6021 appears to be the phone number for Global Venture Development LLC. Both corporations have the same address as Dr. Steven Zhang (44063 Fremont Boulevard), which is located in the same building as Senior-California's current address (and is the same as Senior-California's former address).

137. Upon information and belief, Senior-California and Senior-China also have overlapping personnel.

138. Sun Town and Global Venture are located at the same address as Dr. Steven Zhang and are adjacent to Senior-California. Sun Town has connections with Senior-California, which suggests that Sun Town may be being used as an alter ego of Senior-California and could be a company to which Senior-California's assets have been transferred.

139. Sun Town lists Mei-Guang Chen as its Finance Manager on its Statement of Information filed with California's Secretary of State.

140. Upon information and belief, Mei-Guang Chen also is Finance Manager for Senior-

California. Moreover, Senior's website says it has set up a Research and Development center in California and lists a telephone number for Senior-California. When this number is called, a pre-recorded message plays, saying "Hello, and thank you for calling Sun Town Technology."

141. At least as late as May 16, 2019, Sun Town was selling or offering to sell Senior's separators.

142. Sun Town's CEO is Jian Chen. Jian Chen is also a director of other companies located at the same location as Global Venture, Senior-California and Dr. Zhang. Jian Chen, Chief Financial Officer, Global PC Direct; Jian Chen, Managing Member, GRJS LLC; Jian Chen, Member, ST Cyberlink, also known as Global PC Direct, all located at 44063 Fremont Boulevard.

FIRST CLAIM FOR RELIEF

Infringement of the '520 patent

143. Celgard repeats and incorporates by reference all prior allegations of this Complaint as if fully set forth herein.

144. Celgard is the owner by assignment of all rights, title, and interest in and to the '520 patent.

145. The '520 patent is valid and enforceable.

146. Upon information and belief, and in violation of 35 U.S.C. § 271(a), Defendants have infringed and continue to infringe at least Claim 12 of the '520 patent by making, using, offering for sale, selling, and/or importing in or into the United States ceramic coated separators covered by at least Claim 12 of the '520 patent, including but not limited to at least Senior's ceramic coated separators identified above by model number.

147. As a direct and proximate result of Defendants' infringement of the '520 Patent, Celgard has been injured and has been caused significant harm and financial damages.

148. Upon information and belief, Senior and at least Sun Town and Global Venture have also induced and continue to induce infringement of at least Claim 12 of the '520 patent in violation of 35 U.S.C. § 271(b).

149. Senior and at least Sun Town and Global Venture induce their customers, purchasers, users, and/or developers of Senior's separators, such as Farasis, to infringe at least

Claim 12 of the '520 patent (or its predecessor, the '586 patent), and does so with specific intent, by providing instructions, directions, information, and/or knowledge on how to use their separators, and/or incorporate their separators into other products.

150. Senior and at least Sun Town and Global Venture have had knowledge of the '520 patent (or its predecessor, the '586 patent) at least as early as February 25, 2019. Farasis had notice of the '520 patent (or its predecessor, the '586 patent) at least as early as November 12, 2019. Nevertheless, Senior and at least Sun Town and Global Venture have continued to induce their customers, purchasers, users, and/or developers, such as Farasis, to infringe. They do so through documentation accompanying Senior's separators, technical support, advertisements, datasheets, demonstrations, and/or tutorials.

151. As a direct and proximate result of Senior's and Sun Town's and Global Venture's induced infringement of the '520 Patent, Celgard has been injured and has been caused significant harm and financial damages.

152. Upon information and belief, Defendants, without Celgard's permission, have been and are presently infringing at least Claim 12 of the '520 patent in violation of 35 U.S.C. § 271(c), by selling or offering to sell material or apparatuses for use in practicing the '520 patent (and its predecessor, the '586 patent) that are a material part of the invention to their customers, purchasers, users, and/or developers, such as Zero Motorcycles, Farasis, CATL, Saft, and BYD.

153. The components sold or offered for sale by Defendants have no substantial non-infringing uses. Further, they are not staple articles of commerce and constitute a material part of the invention. Thus, Defendants knew or should have known that the combination for which their components were made was protected by the '520 patent (and its predecessor, the '586 patent), and yet Defendants infringed upon the '520 patent in spite of this knowledge.

154. As such, Defendants have contributorily infringed and continue to infringe the '520 patent, as set forth herein, knowing that the materials or components would be made or adapted for use in an infringing manner.

155. Defendants' infringing acts have been and are the actual and proximate cause of damage to Celgard, and Celgard has sustained damages and harm and will continue to sustain

damages and harm as a result of Defendants' infringement of the '520 patent (and its predecessor, the '586 patent).

156. Senior, Sun Town and Global Venture have had actual knowledge of the '520 patent at least as February 25, 2019. Farasis Energy Inc. has had actual knowledge of the '520 patent at least as early as November 12, 2019. The other Defendants have had actual knowledge of the '520 patent as least as early as this Complaint. Defendants continued infringement on or after these dates is in spite of the objectively high likelihood that their activities constitute infringement of a valid patent, and this risk was either known or so obvious that it should have been known to Defendants. Thus, Defendants' continued infringement at least as of these dates is willful and deliberate.

157. Celgard has suffered and continues to suffer damages and irreparable harm as a result of Defendants' past and ongoing infringement. Unless and until Defendants' infringement is enjoined, Celgard will continue to be damaged and irreparably harmed.

158. Celgard is entitled to all remedies at law and equity, including, but not limited to, an injunction against Defendants' infringement of the '520 patent pursuant to 35 U.S.C. § 283.

159. Celgard is entitled to damages for Senior's infringement of the '520 patent, including, but not limited to, damages pursuant to 35 U.S.C. §§ 284, 285.

SECOND CLAIM FOR RELIEF

Infringement of the '867 patent

160. Celgard repeats and incorporates by reference all prior allegations of this Complaint as if fully set forth herein.

161. Celgard is the owner by assignment of all rights, title, and interest in and to the '867 patent.

162. The '867 patent is valid and enforceable.

163. Upon information and belief, and in violation of 35 U.S.C. § 271(a), Defendants have infringed and continue to infringe at least Claim 17 of the '867 patent by making, using, offering for sale, selling, and/or importing in or into the United States separators covered by at least Claim 17 of the '867 patent, including, but not limited to, at least Senior's separators identified above by model number.

164. As a direct and proximate result of Defendants infringement of the ’867 Patent, Celgard has been injured and has been caused significant harm and financial damages.

165. Upon information and belief, Senior, Sun Town and Global Venture have also induced and continue to induce infringement of at least Claim 17 of the ’867 patent in violation of 35 U.S.C. § 271(b).

166. Senior, Sun Town and Global Venture induce their customers, purchasers, users, and/or developers of their separators to infringe at least Claim 17 of the ’867 patent, and do so with specific intent, by providing instructions, directions, information, and/or knowledge on how to use their separators, and/or incorporate their separators into other products.

167. Senior, Sun Town and Global Venture have had knowledge of the ’867 patent at least as early as the filing of the earlier Complaint and/or this Complaint. Nevertheless, Senior, Sun Town and Global Venture have continued to induce their customers, purchasers, users, and/or developers to infringe. They do so through documentation accompanying their separators, their technical support, advertisements, datasheets, demonstrations, and/or tutorials.

168. As a direct and proximate result of Senior’s, Sun Town’s and Global Venture’s induced infringement of the ’867 Patent, Celgard has been injured and has been caused significant harm and financial damages.

169. Upon information and belief, Defendants, without Celgard’s permission, have been and are presently infringing at least Claim 17 of the ’867 patent in violation of 35 U.S.C. § 271(c), by selling or offering to sell material or apparatuses for use in practicing the ’867 patent that is a material part of the invention to their customers, purchasers, users, and/or developers, such as Zero Motorcycles, Farasis, CATL, Saft, and BYD.

170. The components sold or offered for sale by Defendants have no substantial non-infringing uses. Further, they are not staple articles of commerce and constitute a material part of the invention. Thus, Defendants knew or should have known that the combination for which their components were made was protected by the ’867 patent and yet Defendants infringed upon the ’867 patent in spite of this knowledge.

171. As such, Defendants have contributorily infringed and continue to infringe the ’867

patent, as set forth herein, knowing that the materials or components would be made or adapted for use in an infringing manner.

172. Defendants have had actual knowledge of the '867 patent at least as of the filing of the Complaint. Defendants continued infringement on or after this date is in spite of the objectively high likelihood that their activities constitute infringement of a valid patent, and this risk was either known or so obvious that it should have been known to Defendants. Thus, Defendants' continued infringement at least as of the filing of the Complaint is willful and deliberate.

173. Celgard has suffered and continues to suffer damages and irreparable harm as a result of Defendants' past and ongoing infringement. Unless and until Defendants' infringement is enjoined, Celgard will continue to be damaged and irreparably harmed.

174. Celgard is entitled to all remedies at law and equity, including, but not limited to, an injunction against Defendants' infringement of the '867 patent pursuant to 35 U.S.C. § 283.

175. Celgard is entitled to damages for Defendants' infringement of the '867 patent, including, but not limited to, damages pursuant to 35 U.S.C. §§ 284, 285.

THIRD CLAIM FOR RELIEF

Misappropriation of Trade Secrets in Violation of the Defend Trade Secrets Act

(18 U.S.C. § 1836, *et seq.*)

176. Celgard repeats and incorporates by reference all prior allegations of this Complaint as if fully set forth herein.

177. Celgard owns and possesses certain trade secrets and confidential information, as alleged above.

178. Celgard's trade secrets and confidential information related to at least its technical, logistical, and operational plans, manuals, programs, procedures, and the like concerning its resin technology, its dry process technology, including manufacturing methods, techniques, SOCs, SOPs, and processes, materials, performance issues (such as safety, temperature, battery life), suppliers, preferred resins, inspection and testing, resin properties, precursor properties, internal specifications, technical service, custom equipment, operating procedures, optimization of parameters, design, selling and marketing its products, and obtaining contracts and business with

its customers, and other "know-how" constitute trade secrets as defined by the Defend Trade Secrets Act.

179. Celgard maintains its trade secrets and confidential information as confidential and does not share them with competitors or the public.

180. Celgard keeps its trade secrets and confidential information alleged in this Complaint confidential and has undertaken strict efforts to maintain the secrecy of the trade secrets and confidential information at issue. These efforts include, but are not limited to, requiring its employees to sign confidentiality agreements as conditions of their employment, maintaining confidential information on a secure server, extensive training, adherence with its policies, implementing robust document control systems to protect its trade secrets and confidential information, and restricting access to and protecting its trade secrets and confidential information.

181. Celgard's trade secrets and confidential information described herein derive independent economic value from not being generally known to, and not being readily ascertainable through proper means by, others who could obtain economic value from the disclosure or use of the information.

182. Such trade secrets and confidential information constitute "trade secrets" within the meaning of the Defend Trade Secrets Act.

183. Celgard's trade secrets and confidential information were made available to Dr. Steven Zhang during his employment with Celgard under circumstances requiring him to maintain the trade secrets and confidential information in confidence.

184. Senior, Sun Town and Global Venture knew or should have known under the circumstances that the information misappropriated were trade secrets and confidential information.

185. Celgard is informed and believes, and on that basis alleges, that Senior, Sun Town and Global Venture have been and are now using Celgard's trade secrets and confidential information, without its consent, to produce many of their separators, including by providing these separators to Farasis.

186. Celgard is informed and believes, and on that basis alleges, that if Senior, Sun Town

and Global Venture are not enjoined, these defendants will continue to misappropriate and use Celgard's trade secrets and confidential information for their own benefit and to Celgard's detriment.

187. As a direct and proximate result of Senior's, Sun Town's and Global Venture's conduct, Celgard has been damaged in an amount to be proven at trial. Celgard also has incurred, and will continue to incur, additional damages, costs, and expenses, including attorneys' fees and costs, as a result of Senior's misappropriation. As a further proximate result of the misappropriation and use of Celgard's trade secrets and confidential information, Senior, Sun Town and Global Venture were unjustly enriched.

188. If Senior's, Sun Town's and Global Venture's conduct is not stopped, Celgard will continue to suffer competitive harm and irreparable injury. Because Celgard's remedy at law is inadequate, Celgard seeks, in addition to damages, temporary, preliminary, and permanent injunctive relief to recover and protect its trade secrets and confidential information and other legitimate business interests.

189. In performing the conduct described herein, Senior, Sun Town and Global Venture acted willfully and maliciously, intending to injure Celgard and to wrongfully obtain an advantage at Celgard's expense and detriment. As a result of this conduct, Celgard is entitled to an award of exemplary damages against Senior, Sun Town and Global Venture as well as attorneys' fees and costs incurred in this action.

FOURTH CLAIM FOR RELIEF

Misappropriation of Trade Secrets in Violation of Cal. Civ. Code § 3426, *et seq.*

190. Celgard repeats and incorporates by reference all prior allegations of this Complaint as if fully set forth herein.

191. Celgard owns and possesses certain trade secrets and confidential information, as alleged above.

192. Celgard's trade secrets and confidential information related to at least its technical, logistical, and operational plans, manuals, programs, procedures and the like concerning its resin technology, its dry process technology, including manufacturing methods, techniques, SOCs,

SOPs, and processes, materials, performance issues (such as safety, temperature, battery life), suppliers, preferred resins, inspection and testing, resin properties, precursor properties, internal specifications, technical service, custom equipment, operating procedures, optimization of parameters, design, selling and marketing its products, and obtaining contracts and business with its customers, and other "know how" constitute trade secrets as described above and defined by California's Uniform Trade Secrets Act.

193. Celgard keeps the trade secret information alleged in this Complaint confidential and has undertaken strict efforts to maintain the secrecy of the trade secrets at issue, as discussed above. Celgard's trade secret information described herein derives independent economic value from not being generally known to the public or others who could obtain economic value from their disclosure or use (such as competitors).

194. Such confidential information constitutes trade secrets within the meaning of California Civil Code Section 3426.1.

195. Celgard's confidential, proprietary, and trade secret information was made available to Dr. Steven Zhang during his employment with Celgard under circumstances requiring him to maintain the information in confidence.

196. Senior, Sun Town and Global Venture misappropriated Celgard's trade secret information at least by acquiring such information improperly from and by hiring Dr. Steven Zhang.

197. Senior, Sun Town and Global Venture knew or should have known under the circumstances that the information misappropriated was trade secret information.

198. Celgard is informed and believes, and on that basis alleges, that Senior, Sun Town and Global Venture are now using Celgard's trade secrets, without its consent, to produce many of its separators, including by providing these separators to Farasis.

199. Senior's, Sun Town's and Global Venture's misconduct detailed herein constitutes misappropriation of Celgard's trade secrets and violates Section 3426 *et seq.* of the California Civil Code. As a direct and proximate result of Senior's, Sun Town's and Global Venture's conduct, Celgard has been damaged in an amount to be proven at trial. Celgard also has incurred, and will continue to incur, additional damages, costs, and expenses, including attorneys' fees and costs, as

a result of Senior's, Sun Town's and Global Venture's misappropriation. As a further proximate result of the misappropriation and use of Celgard's trade secrets, Senior, Sun Town and Global Venture were unjustly enriched.

200. Pursuant to Section 3426.2 of the California Civil Code, Celgard is entitled to an injunction to prohibit Senior from using, disclosing and/or otherwise benefiting from Celgard's trade secrets, to eliminate any commercial advantage that Senior, Sun Town and Global Venture may otherwise derive from their misappropriation, and to require Senior, Sun Town and Global Venture to immediately return to Celgard all trade secret, know-how, and confidential information, documents, and any other misappropriated materials.

201. Pursuant to Section 3426.3 of the California Civil Code, Celgard is entitled to recover its damages incurred by virtue of Senior's, Sun Town's and Global Venture's wrongful misappropriation of its trade secrets, in addition to disgorgement of all amounts by which Senior, Sun Town and Global Venture have been unjustly enriched, or the payment of a reasonable royalty, in an amount to be proven at trial.

202. In performing the conduct described herein, Senior, Sun Town and Global Venture acted willfully and maliciously, intending to injure Celgard and to wrongfully obtain an advantage at Celgard's expense. Under Section 3426.3 of the California Civil Code, Celgard is entitled to all remedies available under the law to compensate Celgard, including, but not limited to, an award of exemplary damages against Senior, Sun Town and Global Venture.

203. Pursuant to Section 3426.4 of the California Civil Code, Celgard also is entitled to an award of its attorneys' fees and costs incurred in this action.

204. Because Celgard's remedy at law is inadequate, Celgard further is entitled to preliminary and permanent injunctive relief to recover and protect its confidential, proprietary, and trade secret information and other legitimate business interests.

FIFTH CLAIM FOR RELIEF

Violation of Cal. Bus & Prof. Code § 17200, *et seq.*

205. Celgard repeats and incorporates by reference all prior allegations of this Complaint as if fully set forth herein.

206. California Business and Professions Code section 17200 prohibits unfair competition in the form of any unlawful, unfair, or fraudulent business practice.

207. Senior, Sun Town and Global Venture knowingly performed acts to pirate away the fruits of Celgard's customer base, including, but not limited to: interfering with the prospective economic advantage Celgard has with its customers, deceiving the customers, diverting and attempting to divert the customers, such as Farasis, through use of trade secrets and confidential information misappropriated from Celgard, and by engaging in other acts alleged herein. These acts constitute unlawful, unfair, and/or fraudulent business practices and unfair competition prohibited under California Business and Professions Code Sections 17200 *et seq*.

208. As alleged more fully above, Senior, Sun Town and Global Venture took Celgard's trade secrets and confidential information related to, but not limited to, its technical, logistical, and operational plans, manuals, programs, procedures and the like concerning its resin technology, its dry process technology, including manufacturing methods, techniques, SOCs, SOPs, and processes, materials, performance issues (such as safety, temperature, battery life), suppliers, preferred resins, inspection and testing, resin properties, precursor properties, internal specifications, technical service, custom equipment, operating procedures, optimization of parameters, design, selling and marketing its products, and obtaining contracts and business with its customers, and other "know-how."

209. Senior, Sun Town and Global Venture have benefited from these acts in the form of unfair advantages in developing, producing, and selling their separators, including to Farasis.

210. As a result of such acts, Celgard has suffered damage in an amount as yet unknown, and if Senior's, Sun Town's and Global Venture's conduct is not stopped, Celgard will continue to suffer irreparable injury and significant damages, in an amount to be proven at trial.

211. Until relief is granted to Celgard, Celgard will be harmed and Senior, Sun Town and Global Venture will be unjustly enriched, which unjust enrichment should be disgorged pursuant to allowable remedies under California Business and Professions Code Sections 17200 *et seq*.

SIXTH CLAIM FOR RELIEF

Inducing Breach of Contract

212. Celgard repeats and incorporates by reference all prior allegations of this Complaint as if fully set forth herein.

213. As set forth above, Dr. Steven Zhang and Celgard entered into a Confidentiality and Non-solicitation Agreement, a valid contract, on or about July 18, 2005.

214. Senior, Sun Town and Global Venture knew, or should have known, of the existence of the Confidentiality and Non-solicitation Agreement described above, including at least because they engaged in consulting services with Dr. Zhang, and employed Dr. Zhang as Senior's CTO at least after he was employed at Celgard, which proximately caused Dr. Zhang's breach of his agreement.

215. Upon information and belief, Senior, Sun Town and Global Venture intended to cause Dr. Zhang to breach his agreement with Celgard.

216. As a result of Senior's, Sun Town's and Global Venture's actions, Dr. Zhang did in fact breach his agreement with Celgard at least during the time he was providing consulting services to Senior, Sun Town and Global Venture or serving as Senior's CTO, as Dr. Bin Wang.

217. Senior's, Sun Town's and Global Venture's intentional acts have damaged and continue to damage Celgard in an amount to be determined at trial, of at least a reasonable royalty and/or lost profits that Celgard would have made but for Senior's, Sun Town's and Global Venture's inducing Dr. Zhang's beach of his agreement with Celgard.

218. In addition, the aforementioned acts of Senior, Sun Town and Global Venture were done willfully and maliciously, and Celgard is entitled to punitive and exemplary damages in an amount to be shown according to proof at trial.

SEVENTH CLAIM FOR RELIEF

Intentional Interference with Prospective Economic Relations

219. Celgard repeats and incorporates by reference all prior allegations of this Complaint as if fully set forth herein.

220. Celgard had a long relationship with a former customer, Farasis, that was worth

potentially hundreds of millions of dollars, that, if it had continued, would have benefited Celgard.

221. Upon information and belief, Senior, Sun Town and Global Venture knew of Celgard's longstanding economic relationship with this former customer, Farasis.

222. Senior, Sun Town and Global Venture used Celgard's misappropriated trade secrets and confidential information to unfairly compete against Celgard and impede Celgard's existing relationship with this customer, Farasis.

223. On information and belief, Senior, Sun Town and Global Venture intended to disrupt Celgard's business and economic relationship with this former customer, Farasis, by and through using Celgard's trade secrets and confidential information and selling their knockoff separators at deeply discounted prices.

224. As a direct result of Senior's, Sun Town's and Global Venture's wrongful conduct, this customer, Farasis, terminated its contract with Celgard and awarded at least a portion of that business to Senior, Sun Town and Global Venture.

225. Senior's, Sun Town's and Global Venture's conduct was a substantial factor in causing Celgard's harm.

226. As a direct and proximate result of Senior's, Sun Town's and Global Venture's interference with Celgard's economic relationship with this former customer, Farasis, Celgard has been and continues to be injured irreparably and otherwise, and has sustained significant damages, in an amount to be determined by the evidence at trial. Additionally, Senior, Sun Town and Global Venture have been and will continue to be unjustly enriched in an amount to be proven at trial. Senior's, Sun Town's and Global Venture's unjust enrichment includes, but is not limited to, its award of Celgard's lucrative account with this former customer, Farasis, and its receipt of business opportunities that rightly belong to Celgard.

227. Senior, Sun Town and Global Venture performed the foregoing acts, conduct, and omissions maliciously and oppressively, with the intent to damage Celgard. By reason of this conduct, Celgard has been damaged by Senior's, Sun Town's, and Global Venture's intentional interference with its contractual relations, and is entitled to damages in amount to be determined at trial, as well as an award of exemplary damages and attorneys' fees and costs.

EIGHTH CLAIM FOR RELIEF

Breach of Contract

228. Celgard repeats and incorporates by reference all prior allegations of this Complaint as if fully set forth herein.

229. The Agreements, which Farasis knowingly and willingly entered into, are valid and enforceable contracts.

230. Celgard has performed all of its material obligations under the Agreements.

231. At least in or about January 2019, Farasis unilaterally terminated the Agreements without prior written notice, and without paying for all goods and services Farasis received thereunder, and all amounts due and owing thereunder.

232. Upon information and belief, Farasis and Senior entered into a contract, effective in or around January 2019, for Senior to supply separators to Farasis. That contract was effective before the Agreements between Celgard and Farasis expired.

233. Farasis materially breached the Agreements with Celgard by failing to fulfill the minimum order requirements and accept millions of m2 worth of inventory, which forced Celgard to write-off same.

234. Accordingly, as a direct and proximate cause of Farasis' contractual breaches, Celgard has suffered and continues to suffer immediate and irreparable injury, loss, harm, or damage, and will continue to suffer said injury, loss, harm, or damage, unless and until Farasis is restrained from its present conduct. As a direct and proximate result of Farasis' wrongful, unjustified, and intentional conduct, Celgard believes that its harm is irreparable and cannot fully be addressed through money damages, but to the extent any damage can be ascertained, Celgard is entitled to recover such damages in an amount to be proven at trial.

235. As a direct and proximate result of Farasis' contractual breaches, Celgard has suffered additional damages.

NINTH CLAIM FOR RELIEF

Inducing Breach of Contract

236. Celgard repeats and incorporates by reference all prior allegations of this Complaint

as if fully set forth herein.

237. As set forth above, Celgard and Farasis entered into Agreements, which are valid contracts, with the latest being on or about May 4, 2018.

238. Senior, Sun Town and Global Venture knew, or should have known, of the existence of these Agreements described above, including at least because they engaged in conversations with Farasis about becoming its supplier of separator products.

239. Upon information and belief, Senior, Sun Town and Global Venture intended to cause Farasis to breach its Agreements with Celgard.

240. As a result of Senior's, Sun Town's and Global Venture's actions, Farasis did in fact breach its Agreements with Celgard at least as of January 2019, when Senior, Sun Town, and Global Venture started providing Farasis with their separators.

241. Senior's, Sun Town's and Global Venture's intentional acts have damaged and continue to damage Celgard in an amount to be determined at trial, of at least a reasonable royalty and/or lost profits that Celgard would have made but for Senior's, Sun Town's and Global Venture's inducing Farasis' beach of their agreement with Celgard.

242. In addition, the aforementioned acts of Senior, Sun Town and Global Venture were done willfully and maliciously, and Celgard is entitled to punitive and exemplary damages in an amount to be shown according to proof at trial.

TENTH CLAIM FOR RELIEF

Breach of Implied Covenant of Good Faith and Fair Dealing

243. Celgard repeats and incorporates by reference all prior allegations of this Complaint as if fully set forth herein.

244. The Agreements between Celgard and Farasis contain an implied covenant by the parties to act in good faith and deal fairly with each other.

245. By intentionally breaching its Agreements with Celgard, Farasis violated, and continues to violate, the Agreements' implied covenant of good faith and fair dealing by frustrating Celgard's right to benefit from these Agreements.

246. This breach of implied covenant of good faith and fair dealing has caused, and

continues to cause, Celgard to suffer substantial monetary damages, in an amount to be determined at trial, as well as monetary damages that cannot be calculated, and irreparable harm to its reputation and goodwill.

JURY DEMAND

Pursuant to Civ. L.R. 3-6 and Fed. R. Civ. P. 38, Celgard hereby requests a trial by jury.

REQUEST FOR RELIEF

Celgard respectfully asks that the Court enter judgment in its favor as follows:

A. Judgment in favor of Celgard and against Defendants on each cause of action alleged herein;

B. Finding that Defendants have infringed and are presently infringing the Asserted Patents;

C. Finding that Defendants' infringement of the Asserted Patents has been and continues to be willful;

D. Awarding Celgard damages adequate to compensate it for Defendants' past and present infringement, but in no event less than a reasonable royalty;

E. Awarding an accounting and supplemental damages for those acts of infringement committed by Defendants subsequent to the discovery cut-off date in this action through the date Final Judgment is entered;

F. Ordering that damages for infringement of the Asserted Patent(s) be trebled as provided for by 35 U.S.C. § 284 for Defendants' willful infringement of the Asserted Patents;

G. That Celgard be awarded its full actual and consequential damages according to proof at trial;

H. That Celgard be awarded Defendants' unjust enrichment and restitution to the fullest extent available under applicable law;

I. That Celgard be awarded punitive, enhanced, and/or exemplary damages, including but not limited to at least doubled damages and unjust enrichment under Cal. Civ. Code Section 3426, to the fullest extent available under applicable law;

J. Finding that this case is exceptional;

K. Awarding Celgard its attorneys' fees and costs, together with prejudgment and post-judgment interest;

L. Preliminary and permanent injunctive relief pursuant to which Defendants, and each of them, and their employees or representatives, and all persons acting in concert or participating with them are ordered, enjoined, or restrained, directly or indirectly, by any means whatsoever, as follows:

a. From disclosing or using Celgard's trade secrets and confidential information;

b. From making, testing, using, promoting, offering to sell, marketing, commercializing, or selling separators or products of any kind that utilize, embody, or were developed, in whole or in part, with the benefit or use of any of Celgard's trade secrets and/or confidential information;

c. From utilizing any processes or methods that are derived from, contain, or embody, in whole or in part, any of Celgard's trade secrets and/or confidential information;

d. From submitting to or filing with any regulatory body, including but not limited to, the United States Patent and Trademark Office, any documents or other materials (in paper, electronic, or any other form) that are derived from, contain, embody, in whole or in part, any of Celgard's trade secrets and/or confidential information;

e. Immediately to preserve and return to Celgard (i) all copies of all Celgard documents and information, including without limitation any trade secrets and/or confidential information acquired from Celgard and documents and information containing Celgard trade secrets and/or confidential information; and (ii) all copies of all materials (in paper, electronic, or any other form) containing any, or derived from any, Celgard trade secrets and/or confidential information; and

f. To identify each individual and entity to whom or to which Defendants and any of their employees or representatives, and all persons acting in concert or participating with them, disclosed (i) any Celgard documents or other materials (in paper, electronic, or any other form) or (ii) any of Celgard's trade secrets and/or confidential information; and

g. To turn over to the Court any proceeds Defendants have received from the misappropriation of Celgard's trade secrets and/or confidential information, which proceeds would be held in constructive trust until the conclusion of this litigation;

M. An award of exemplary damages against Defendants, as well as attorneys' fees and costs incurred in this action;

N. An award of punitive and exemplary damages against Defendants;

O. A preliminary and permanent injunction against Defendants, and their employees or representatives, and all persons acting in concert or participating with them, continued direct and indirect infringements, misappropriations, and uses of Celgard's trade secrets and confidential information, or any products or marketing materials including or based upon Celgard's trade secrets and confidential information;

P. To the extent injunctive relief is not awarded, awarding Celgard damages adequate to compensate Celgard for Defendants' future infringement, misappropriations, and any uses of Celgard's trade secrets and confidential information, but in no event less than a reasonable royalty; and

Q. Any further relief that this Court deems just and proper.

ROBINS KAPLAN LLP
ATTORNEYS AT LAW
MOUNTAIN VIEW

DATED: December 12, 2019

Respectfully submitted,

/s/ Bryan J. Vogel
Bryan J. Vogel (*pro hac vice*)

ATTORNEYS FOR PLAINTIFF CELGARD, LLC